

REMARKS

Reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 19-31 have been cancelled herein and new claims 32-43 have been added. Accordingly, claims 1-31 have been cancelled and the pending claims now under consideration are 32-43.

It is respectfully submitted that the new claims added by this Amendment are all supported in the as-filed specification.

The new claims are directed to an intumescent material for use as an “intumescent, fire-retarding additive and/or in expanded form as an additive for producing flame-retarding materials...” Said intumescent material is obtained by the process referred to in new claim 32.

The claimed invention is therefore an intumescent material, i.e. a material which upon heating, such as during a fire, will expand to thereby provide fire-retarding sealing of through holes, wall bushings and other openings in walls, floors and/or ceilings of buildings. The material, therefore, must be intumescent. By virtue of the present method for obtaining the phyllosilicate intercalation compound, control of the volume of expansion and/or the modified onset temperature to the expected conditions of the fire can be achieved. This will insure that the openings are closed when a fire occurs and will be sealed by means of the expanding intumescent material.

The claims stand rejected for anticipation under 35 U.S.C. § 102(b) over Ou et al. (U.S. 4,655,842) or as obvious over Ou et al. under 35 U.S.C. § 103(a). This rejection is respectfully traversed.

Ou et al. neither discloses an intumescent material, its manufacture, or its use as an intumescent fire-retarding additive. Ou et al. discloses delaminated vermiculite dispersions and a method for producing the same, as disclosed at col. 1, lines 5 and 6. The fact that the vermiculite is delaminated has the consequence that the material is no longer expandable, i.e. is not capable of intumescenting.

The gist of the Ou et al. disclosure is the production of a stable dispersion, in which the vermiculite platelets do not settle upon standing (cf. col. 2, lines 22-24). The Ou et al. patent discloses aqueous vermiculite dispersions formed by treating vermiculite crystals with a citrate anion and a cation, which promotes the swelling of the crystals. The preparation of the treated crystals is then immersed in water permitting the immersed crystals to swell, and then subjecting the resultant swollen crystals while immersed in water to a shearing force to delaminate the vermiculite crystal and form a suspension of delaminated vermiculite platelets.

As stated at col. 4, lines 45-48 of Ou et al., the delaminating of the swollen vermiculite may be effected by conventional high speed shearing means, such as colloid mills, high speed blenders, homogenizers and the like.

Furthermore, all of the examples in Ou et al. exemplify the manufacture of delaminated vermiculite dispersions by the use of a shearing force. Examples 2 and 3 make specific reference to the use of a homogenizer, and also the pressure to be used in the treatment.

Therefore, Ou et al. discloses the necessity for a shearing force which leads to a product comprising a suspension of delaminated vermiculite platelets which in view of their delamination no longer comprise a phyllosilicate or a layered silicate structure. Therefore, they are not expandable and cannot serve as an intumescent material.

In view of the foregoing, claims 32-43 distinguish over the teaching of Ou et al. Accordingly, the Examiner has not established a *prima facie* case of anticipation, in the sense of § 102(b), or obviousness in the sense of § 103(a). Since the rejections have been overcome, their withdrawal is solicited.

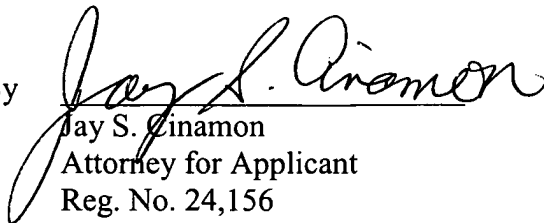
The issuance of a Notice of Allowance of claims 32-43 is respectfully solicited.

Please charge any fees which may be due and which have not been submitted herewith to our Deposit Account No. 01-0035.

Respectfully submitted,

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